SIEMENS

LITHOSTAR MODULARIS

Maintenance Protocol

System

LITHOSTAR MODULARIS / Vario

Customer:	
Address:	
Department:	
Room:	
Contact person:	
Telephone:	
Cust. specific no.:	
Cust. no.:	
Date.:	

The instructions SPL1-130.831.02.01.02 are required for this protocol

SIEMENS Office:	
Address:	
Region:	
Country:	
Contact person:	
Tel.:	
CSE in charge:	
Tel.:	

Remarks Regarding the Protocol:

The protocol is valid as proof of quality for **one** check that must be performed on the system / component in one year.

The check must be performed in the specified intervals.

The results of the check are entered in this protocol.

The chapter numbers in front of the checkpoints indicate the corresponding chapters in the particular instructions (see cover page).

The protocol must be completely filled out by the Customer Service Engineer, i.e.:

- All boxes must be filled out. If a box does not apply to the system or if no entry needs to be made, check the "n.a." box.

- Enter the customer number (Cust. No.:) and the date of the check in the header of each page so that each page can be allocated to a customer and to a check date.

- If there are complaints, the IVKs for the component about which a complaint has been made as well as the type of complaint must be entered in the "Open Points" table provided for this. Correction of these open points also must be documented in this table with the date and a signature. If there are no open points, check "No" and document this with the date and a signature.

- If movable components (also test phantoms that are part of the system) that can be used in different systems are used for the check, they must be entered in the "Movable Components" table provided for this.

- The measurement values for the measurements that must be performed during the check must also be entered in the open spaces / tables provided for them.

- After completing the check, Page 3 of this protocol must be filled out and signed.

Further Processing and Archiving of the Protocol

The protocol is a document and thus must be archived. After completing the test, it must be filed in the corresponding register in the "System Owner Manual" binder. If needed, a copy can be handed to the customer.

System:	
Serial No.:	
Software Version:	
Number of the Service Contract:	
Type of Maintenance:	

Evaluating the Condition of the System / Component

The system has no deficiencies. The image quality test resulted in no differences from required reference values.	
The system / component has slight deficiencies that have no affect on continued operation of the system. However they should be corrected preventively. The image quality test resulted in no differences from required reference values.	
The system / component has serious deficiencies. For safety reasons, continued operation of the system is permitted only after successfully correcting the deficiencies.	

After completing all work steps, an evaluation was performed.   Signature: _____   Date: Name:

The operator or a person assigned for this has taken note of this evaluation.   (if national regulations require this)   Signature: _____   Date: Name:

Explanation of Abbreviations in the Protocol

Abbrev.	Explanation		Abbrev.	Explanation
SI	Safety Inspection		PMF	Preventive Maintenance, Operating Value Check, Function Check
SIE	Electrical Safety Inspection		Q	System Quality, Image Quality
SIM	Mechanical Safety Inspection		QIQ	Image Quality
PM	Preventive Maintenance		QSQ	System Quality Check
PMP	Periodic Preventive Maintenance		SW	Software Maintenance
PMA	Preventive Maintenance Adjustments		CSE	Customer Service Engineer

Additional activities performed

Only activities that are not described in the instructions for the system / component need to be listed.

	Date:		
Additional activities performed:	OK	not OK	n.a.

Open Points:

Yes: No: Signature:

     Date: Name:

If "Yes", enter the component with the IVK and the open point (only the number) in the table. After completing maintenance, record this in the table.

IVK	Component	Open Points	Completed	
			Date	**Signature**

Measuring Devices queried electronically:

Yes: No: Signature:

Date: Name:

If the measurement devices are queried electronically, for example with a Scout Mobile Device, entry of the measuring devices in the table can be skipped.

Measuring Devices	Type	Serial No.	Date Used	Next Cali-bration Due

Movable Components:

Yes: No: Signature:

Date: Name:

If "Yes", enter the movable component with which the check was performed along with the with the Serial No. in the table.

Movable components (also test phantoms that are part of the system) are parts that can be used on different systems).

Component	Serial No.

OK   not   n.a.
       OK

1   General Information

2   LITHOSTAR MODULARIS / Vario Maintenance

2.1   Visual inspection of exterior

PMP   Cover panels

2.2   Inspection of environment

SIE   Power outlets

SIE   Line voltage

         Measured value:

SIE   Ground fault detector

2.3   System checks

SIM   Cover panels

SIM   Suspension arm

SIM   Brakes

SIM   Wheels

SIM   Warning labels and markings

SIE   Cable and plugs

SIE   Isocenter crosshairs on the I.I. of the ARCADIS Orbic or SIREMOBIL Iso-C, or C-arm unit of the Vario

2.4   Preventive maintenance

PMP   System

PMP   Guide pins for additional deflection rollers

PMP   Suspension arm

PMP   Ventilation

PMP   Batteries (every 5 years)

       Startup Date / Date of Last Replacement   .   .

                                            DD   MM   YYYY

2.4.1   Water system

PMP   Water filter

PMP   Cooling circuit

PMP   Water circuitry system controlling coupling - pump head

PMP   Refilling water system

2.5   Functional check

PMP   Operator panel

PMF   Isocenter with X-ray

PMF   Isocenter ultrasound localization

OK   not   n.a.
OK

PMF   Triggering shock waves
PMF   Pressure measurement
PMP   Maintenance

2.6   Operating values

2.7   Final Work Steps

SIE   Protective Conductor Test

Measured value: